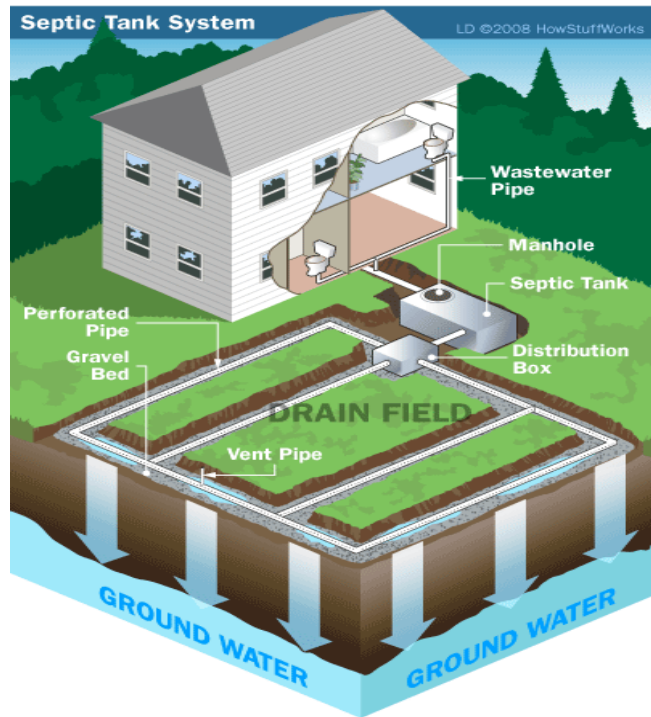


# Green Facts: Large Subsurface Sewage Disposal Works

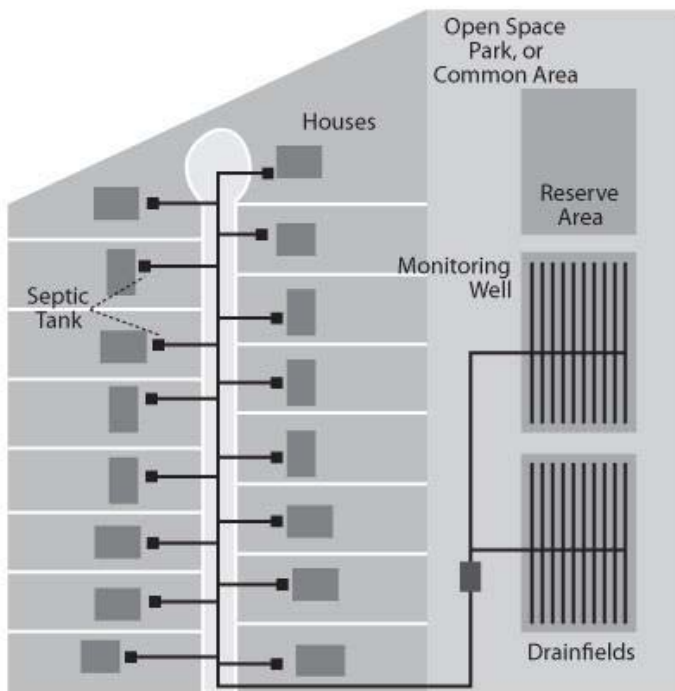
This fact sheet provides information applicable to current and prospective owners and operators of sewage disposal works that treat sewage and dispose of the effluent below the ground surface.

Construction of small subsurface sewage disposal systems, such as the sewage system shown in Figure 1, require a permit under the Building Code Act administered by the Ministry of Municipal Affairs and Housing.

Construction and use of larger subsurface sewage disposal works, such as the sewage works shown in Figure 2, requires an approval under the Environmental Protection Act administered by the Ministry of the Environment (MOE). Subsurface Sewage Disposal Works regulated by the MOE are generally referred to as Large Subsurface Sewage Disposal Works, and are the focus of this fact sheet.



**Figure 1: Example of Small Subsurface Sewage Disposal System**  
Courtesy of Howstuffworks.com



**Figure 2: Example of Large Subsurface Sewage Disposal Works**  
Courtesy of Idaho Department of Environmental Quality

## Background

Between 1974 and 1998 subsurface sewage disposal works were regulated under the Environmental Protection Act and the corresponding Regulation 358.

In April 1998, the permitting of small subsurface sewage disposal systems was moved to the Building Code Act administered by the Ministry of Municipal Affairs and Housing, and the regulation of larger works was moved to the Ontario Water Resources Act administered by the MOE.

Approvals previously issued under the Environmental Protection Act became valid under the Ontario Water Resources Act following the 1998 transition. All Large Subsurface Sewage Disposal Works established after October 31, 2011 require Environmental Compliance Approvals under the Environmental Protection Act. Certificates of Approval issued prior to October 31, 2011 are automatically updated to Environmental Compliance Approvals.

## Planning Considerations

Your local municipality or planning authority (e.g. local services board, Ministry of Municipal Affairs and Housing) should be consulted prior to applying for a permit or approval to assess whether subsurface sewage disposal is appropriate for your facility. This will allow you to:

- determine if your site is located within an area designated as vulnerable under a Source Protection Plan, and whether there are any applicable development restrictions
- ensure that subsurface sewage disposal is consistent with the servicing options endorsed by the municipality/planning authority
- verify there is local capacity to properly dispose of hauled sewage (septage)
- enter into a Municipal Responsibility Agreement as applicable (i.e. sewage disposal works is located within a municipality).

The Ontario Water Resources Act gives the MOE the authority to require a municipality to assume responsibility for sewage works if deemed in the public interest to do so, regardless of whether a Municipal Responsibility Agreement is in place.

Financial assurance provides a similar function, and may be required to ensure funds are available to the MOE for decommissioning and dismantling, or continuation of the operation of the works or facilities, in the event of owner default.

Check out the attached list of resources for help with planning considerations.

## Permits and Approvals

### Small Subsurface Sewage Disposal Systems

These systems require a permit issued by the municipality or the delegated approval authority (e.g. Health Unit, Conservation Authorities) under the Building Code Act and include:

- systems that discharge sewage effluent into the ground subsurface (e.g. septic systems)
- have design flows equal to or less than 10,000 litres per day
- are located wholly within the boundaries of the lot or parcel of land as the building or buildings they are intended to serve are designed to treat domestic sewage, or sewage pre-treated to the quality of domestic sewage, as outlined in the Building Code Act.

### Large Subsurface Sewage Disposal Works

These works require Environmental Compliance Approvals under the Environmental Protection Act and include:

- sewage works that discharge sewage effluent into the ground subsurface with design flows in excess of 10,000 litres per day
- more than one sewage works located on a lot or parcel of land and they have, in total, design flows in excess of 10,000 litres per day
- sewage works not located wholly within the boundaries of the lot or parcel of land as the building or buildings they are intended to serve (regardless of design flows).

The tables provided in Section 8.2.1.3 of the Ontario Building Code should be used to estimate design flows in identifying the applicable regulating authority.

The information above will help you determine who regulates your subsurface sewage disposal works-system.

Approval may also be required for other types of sewage works, including those with design flows equal to or less than 10,000 litres per day.

**Pre-application consultation with the MOE is strongly recommended prior to submitting an application for approval.**

## Design

Chapter 22 of the MOE's [2008 Design Guidelines for Sewage Works](#) should be used as a resource in determining design and supporting information requirements when preparing an application for a sewage works approval.

[The D-5 Guidelines \[Land Use Policy\]](#), and the design standards for Subsurface Sewage Disposal Systems contained in Part 8 Division B of the Ontario Building Code, should also be considered as appropriate and applicable.

The services of a qualified consulting firm familiar with septic system impacts and design will generally be required to prepare documentation necessary to support the approval application. These services should be obtained early in the design and decision making process so technical details such as the proposed scope and extent of the water resources assessment can be discussed with the MOE during pre-application consultation.

### Groundwater Resources Assessment

Local groundwater is normally the initial receiver of effluent from subsurface sewage disposal works. A groundwater assessment is typically required for Environmental Compliance Approvals.

This assessment needs to be completed by either a professional engineer with suitable expertise in groundwater, or professional geoscientist qualified to prepare groundwater quality impact assessments.

### Surface Water Resources Assessment

An assessment of potential surface water impacts is dependant on the characteristics of the local environment and attributes of any receiving surface water.

When required, an assessment of the impact on surface water needs to be prepared by a qualified professional who has the necessary experience to prepare surface water quality impact assessments.

## Existing Systems

Sewage works regulated by the MOE are periodically inspected by Environmental Officers. These inspections may be proactive or reactive; and are done with the objective of providing education, assessing impacts, and ensuring compliance with the sewage works approval and applicable legislation. For further information please refer to [What to Expect When an Environmental Officer Inspects Your Facility](#).

It is the owner's responsibility to have the sewage works evaluated and to apply for any necessary approvals or amendments if:

- the sewage works does not have an Environmental Compliance Approvals<sup>1</sup>/permit
- has (or you suspect it has) been extended or altered without the applicable approval having been obtained
- you have permits under the Building Code Act for some of the works onsite, but due to increased design flows approval could be required under the Environmental Protection Act.

**All necessary approvals must be obtained prior to establishing, using, extending or altering applicable sewage works. The above paragraph is intended to resolve a non-compliance situation; this should not be a normal course of practice.**

Assessment by an environmental consultant with relevant experience/ installer registered with Ministry of Municipal Affairs and Housing may be required to identify the type and location of the components of the sewage works if it has not been approved, or has undergone unapproved expansion or alteration.

## Owner Responsibilities

- Determine if your system requires an approval, or an amendment to an existing approval, under the Environmental Protection Act. See the “Permits and Approvals” section of this document.
- Consult Chapter 22 of the 2008 Design Guidelines for Sewage Works when planning for the establishment, extension, or alteration of a Large Subsurface Sewage Disposal Works.
- Engage in pre-application consultation with your local office of the MOE prior to submission of an application for approval (or amendment of an approval) for Large Subsurface Sewage Disposal Works to aid in identifying design and information requirements, and special considerations, at the beginning of the process.
- Obtain an Environmental Compliance Approvals for new systems **prior to** construction.
- Obtain an amendment to your Environmental Compliance Approvals<sup>1</sup> **before** altering, extending or replacing applicable sewage works.
- Ensure Environmental Compliance Approvals for existing sewage works are in place and accurately reflect the system components.
- Review your Environmental Compliance Approvals (and applicable legislation, policies, and guidelines) ensuring conditions such as monitoring and maintenance requirements are being met.
- Arrange for septage pumped from the sewage works to be transported by approved haulers and disposed of at sites with applicable approvals.
- Report all spills or abnormal discharges into the natural environment to the MOE Spills Action Center at 1-800-268-6060 (the municipality should also be notified as applicable), and promptly clean up and restore the environment to a pre-spill condition.

The provisions in Environmental Compliance Approvals are in place to protect human health and the natural environment. You have a legal obligation as sewage works owner to ensure the system is established, maintained, and operated in accordance with applicable requirements. It is your responsibility to be proactive in looking for a solution if you have concerns or are unsure about the status of your sewage works.

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<sup>1</sup> Remember, approvals valid under the Ontario Water Resources Act prior to October 31, 2011, are now considered Environmental Compliance Approvals under the Environmental Protection Act.

# Resources

Ministry of the Environment Regional and District Offices

[http://www.ene.gov.on.ca/environment/en/about/regional\\_district\\_offices/index.htm](http://www.ene.gov.on.ca/environment/en/about/regional_district_offices/index.htm)

Environmental Protection Act

[http://www.e-laws.gov.on.ca/html/statutes/english/elaws\\_statutes\\_90e19\\_e.htm](http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90e19_e.htm)

Ontario Water Resources Act

[http://www.e-laws.gov.on.ca/html/statutes/english/elaws\\_statutes\\_90o40\\_e.htm](http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90o40_e.htm)

Building Code Act

[http://www.e-laws.gov.on.ca/html/statutes/english/elaws\\_statutes\\_92b23\\_e.htm](http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_92b23_e.htm)

Ontario Building Code Part 8

[http://www.e-laws.gov.on.ca/html/regs/english/elaws\\_regs\\_060350\\_e.htm](http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_060350_e.htm)

Source Protection Plans

[http://www.ene.gov.on.ca/environment/en/subject/protection/STDPROD\\_080598.html](http://www.ene.gov.on.ca/environment/en/subject/protection/STDPROD_080598.html)

D-series Guidelines [Land Use Policy] (MOE, 1980-1996)

<http://www.ene.gov.on.ca/environment/en/resources/results/index.htm?txtSearchType=library&txtSearchValue=D-Series%20Guidelines%20%5BLand-Use%20Policy%5D>

Provincial Policy Statement

<http://www.mah.gov.on.ca/Page215.aspx>

Provincial Policy Statement, 2005: Reserve Sewage System Capacity for Hauled Sewage (PIBS# 6316e)

[http://www.ene.gov.on.ca/environment/en/resources/STD01\\_076034.html](http://www.ene.gov.on.ca/environment/en/resources/STD01_076034.html)

MOE Financial Assurance Guideline, Guideline F-15 (MOE, 2011)

[http://www.ene.gov.on.ca/environment/en/resources/STD01\\_076117.html](http://www.ene.gov.on.ca/environment/en/resources/STD01_076117.html)

Application, Environmental Compliance Approval

[http://www.ene.gov.on.ca/environment/en/resources/STDPROD\\_090552.html](http://www.ene.gov.on.ca/environment/en/resources/STDPROD_090552.html)

Minister's Requirement for Fees (Environmental Compliance Approvals)

[http://www.ene.gov.on.ca/environment/en/resources/STDPROD\\_090888.html](http://www.ene.gov.on.ca/environment/en/resources/STDPROD_090888.html)

Introductory Guide to Applying for an Environmental Compliance Approval

[http://www.ene.gov.on.ca/environment/en/resources/STDPROD\\_090552.html](http://www.ene.gov.on.ca/environment/en/resources/STDPROD_090552.html)

Guide for Applying for Approval of Sewage Works (MOE, 2010)

[http://www.ene.gov.on.ca/environment/en/resources/STD01\\_076022.html](http://www.ene.gov.on.ca/environment/en/resources/STD01_076022.html)

Design Guidelines for Sewage Works, Chapter 22 (MOE, 2008)

[http://www.ene.gov.on.ca/environment/en/resources/STD01\\_076025.html](http://www.ene.gov.on.ca/environment/en/resources/STD01_076025.html)

What to Expect When an Environmental Officer Inspects Your Facility (PIBS# 4888e)

[http://www.ene.gov.on.ca/environment/en/resources/STD01\\_076580.html](http://www.ene.gov.on.ca/environment/en/resources/STD01_076580.html)